

19981220.ba v02_n344.bam.981220

>From ???@??? Mon Dec 21 12:01:58 1998
Message-Id: <199812202301.RAA03015@sco.theporch.com>
Date: Sun, 20 Dec 1998 17:00:11 CST
Subject: BOATANCHORS digest 2344

BOATANCHORS Digest 2344

Topics covered in this issue include:

- 1) RE: Holiday lights
by "Christopher A. Bowne" <radiobwn@riconnect.com>
- 2) Dry Transfer Lettering
by Sandy Gerli <angerli@esslink.com>
- 3) Drake PA resistor issue
by john <johnmb@mindspring.com>
- 4) Manual Search
by "Ray A. Allen" <w2kbr@toad.net>
- 5) Re: Dry Transfer Lettering
by "Tom Frobase" <tfrobase@ghg.net>
- 6) Re: GB> Holiday lights
by Bob Roehrig <broehrig@admin.aurora.edu>
- 7) Re: Storage Temperature for Tubes
by "Arden Allen" <gumbear@pacbell.net>
- 8) Tube Question
by "James D. Mayfield" <kb9bnr@revealed.net>
- 9) RE: Tube Question
by "Pete Ferrand" <pete@vermontel.net>
- 10) Re: Storage Temperature for Tubes
by Andre Guibert <aguibert@sympatico.ca>
- 11) Millen 90800, more info....
by Larry Kayser <kayser@rideau.net>
- 12) Re: Tube Question
by "Bill Riches" <briches@bellatlantic.net>
- 13) ATTN: I-177 Tube Tester Owners
by David Stinson <arc5@ix.netcom.com>
- 14) Re: ATTN: I-177 Tube Tester Owners
by "Mike B. Feher" <n4fs@monmouth.com>
- 15) Need Transformer
by "James D. Mayfield" <kb9bnr@revealed.net>
- 16) DX-100 audio distortion
by jim lockwood <jmlckwd@mindspring.com>
- 17) Re: Storage Temperature for Tubes
by Kargokult@aol.com
- 18) Re: Outcome of 'Micamold' surgery
by Kargokult@aol.com
- 19) Re: DX-100 audio distortion

by Bill Hawkins <bill@iaxs.net>
20) Re: Storage Temperature for Tubes
by Sandra L Knepper <slkst29+@pitt.edu>
21) Re: Millen 90800, more info....
by Kargokult@aol.com
22) Dyanamonsters and stuff for fun
by "Jim Berry" <basalop@gte.net>

Message-ID: <01BD0D0D.984904A0@mys16.riconnect.com>
From: "Christopher A. Bowne" <radiobwn@riconnect.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Holiday lights
Date: Sat, 20 Dec 1997 06:07:32 -0500

Wish I had Bill's advice last week! Spent several hours of "mix and match" getting as many strings as possible working (at least I did it on the bench before putting them up). Now, of course at least one shrub has one of its 3 or so strings out!. I reverse engineered a set I absolutely could not get working to understand how the newer strings work - all the bulbs are wired in series. Each of the bulbs must have a shunt resistance in parallel with the filament so that if it "burns out", continuity through the string is maintained. If you have a bad connection in a socket though, out goes the whole shebang!

However, I don't see how Bill's method would work with more than one bulb in a string is "out" --- there will not be a potential on both sides of any of the connections in question.

BTW (in a feeble attempt to try to keep soemwhat on list topic!) the strings you give up on are a nice source of green twisted pair wire, after you cut off and unravel the series string containing the sockets. Just the thing for wiring filament crcuits for small projects!

Best for the Holidays to everyone on the list!

73,

Chris Bowne, AJ1G
Stonington, CT
radiobwn @riconnect.com
AMI No. 211

Message-ID: <367CF223.71732CC6@esslink.com>
Date: Sun, 20 Dec 1998 07:48:36 -0500
From: Sandy Gerli <angerli@esslink.com>

MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Dry Transfer Lettering
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I need sources for Dry Transfer Lettering, like Datak used to sell. Have to make some panels and label some switches.

--

Sandy Gerli, AC1Y
500 Country Club Road
Avon, CT 06001-2406
(860) 675-5566
E-Mail: angerli@esslink.com

Life Member: ARRL, QCWA
Charter Member: Collins Collectors Association

"Boatanchors are Ham Radio's living heritage!
Get in touch with 'em. Restore something! Smell that hot solder!
Sure beats booze. And, you can get up afterwards..."

Message-Id: <3.0.3.32.19981220080739.00cf4de4@mindspring.com>
Date: Sun, 20 Dec 1998 08:07:39 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: john <johnmb@mindspring.com>
Subject: Drake PA resistor issue
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hello Folks,

I've been working on a couple of Drake items here (Sucessfully, finally....I'm not too smart but I'm stubborn) and have noticed a common issue.

The cathode and grid resistors in the PA of these radios ALWAYS seem to be off...waay off nominal value. This weekend's exercise was a TR4 with inoperable T/R relay (turned out to be an easy fix). Having seen these resistors measure all over the map on the recently finished TR3, I poked around with the Fluke and noted that while one of the grid resistors was close to its nominal 68 ohms, the other two read 95 and 110 ohms. The series cathode resistors on this radio were close.. about 17 ohms instead of the 15 ohm nominal (not so in the TR3).

Interestingly, the 15 ohm resistors are defined as 1w in the schematic, while are only actually 1/2 watt in both the radios I've poked around in.

I'd recommend checking these out when changing finals or if you're under the hood for any reason. They're easy to get to and replace, and the Carbon Comps dont age well in this application.

Will try to use the TR4 on the vintage SSB net this afternoon... on 14.293/2PM EST (I know....it's almost too new for this...I'll cheat!)

Best Holidays to all of you,

/John

```
+-----  
| John Brewer- WB50AU/4  
| AMI #24    Vintage Radio Website  
| http://www.mindspring.com/~johnmb/  
+-----
```

```
-----  
Message-ID: <367CF8FA.74B6@toad.net>  
Date: Sun, 20 Dec 1998 08:17:46 -0500  
From: "Ray A. Allen" <w2kbr@toad.net>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
CC: boatanchors@theporch.com  
Subject: Manual Search  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit
```

Firebottle Friends:

Recently received a "FM Modulation Meter" (vintage unkn)
made by LAMPKIN Lab., INC, Bradenton Fla.
Model 205A Sr# 3218

Covers 25-500Mc

I would guess this might be FM deviation meter, but not sure. Has 10 bottles including VR. Gear is complete, appears to be in good shape, but have no manual, schematic etc.....Anybody hold one of these gems from yesteryear??

Thanks

es 73 Ray

--

Ray A. Allen, Sr., W2KBR/3
8303 Grainfield Rd.,
Severn, Maryland, 21144-2331

Message-ID: <000e01be2c20\$6fe02a10\$0201010a@nt-tlf.ampr.org>
From: "Tom Frobase" <tfrobase@ghg.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Dry Transfer Lettering
Date: Sun, 20 Dec 1998 07:55:26 -0600
MIME-Version: 1.0
Content-Type: text/plain;
 charset="us-ascii"
Content-Transfer-Encoding: 7bit

I have been using the modern technology lately to do the same. A couple of years ago I purchased a Casio EZ-Label printer, with clear tape it does a bang up job (less than \$60.00). I also have been using my Epson ink jet on transparencies with a laquer coating over the lettering, looks very professional.

Most any art supply store still sell the dry transfers. A good mail order supply is a company called Dick Blick they are located in Emmaus PA 18049, I used to live there. I assume Avon is close to New York City, you can find anything there ... 73 tom ... N3LLL

-----Original Message-----

From: Sandy Gerli <angerli@esslink.com>
To: Old Tube Radios <boatanchors@theporch.com>
Date: Sunday, December 20, 1998 6:41 AM
Subject: Dry Transfer Lettering

>I need sources for Dry Transfer Lettering, like Datak used to sell. Have
>to make some panels and label some switches.

>

>--

>Sandy Gerli, AC1Y
>500 Country Club Road
>Avon, CT 06001-2406
>(860) 675-5566
>E-Mail: angerli@esslink.com

>

>Life Member: ARRL, QCWA
>Charter Member: Collins Collectors Association

>

>"Boatanchors are Ham Radio's living heritage!

>Get in touch with 'em. Restore something! Smell that hot solder!
>Sure beats booze. And, you can get up afterwards..."
>

Date: Sun, 20 Dec 1998 08:22:09 -0600 (CST)
From: Bob Roehrig <broehrig@admin.aurora.edu>
To: Old Tube Radios <boatanchors@theporch.com>
cc: boatanchors@theporch.com, glowbugs@piobaire.mines.uidaho.edu
Subject: Re: GB> Holiday lights
Message-ID: <Pine.ULT.3.96.981220082016.10669A-100000@admin.aurora.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Sat, 19 Dec 1998, Bill Hawkins wrote:

>..... At some point, you
> will notice that the voltage picked up by the probe changes quite a bit.
> Either the bulb where it changed or the one before it has an open circuit.

I can just picture a 545 on a cart next to the tree. The XYL would certainly believe I've gone off the deep end :-)

Season's greetings to you - all too!

"Nostalgia is a thing of the past"
E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI
CIS: Data / Telecom Aurora University, Aurora, IL
630-844-4898 Fax 630-844-5530

Message-Id: <199812201559.HAA28053@mail-gw2.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Storage Temperature for Tubes
Date: Sun, 20 Dec 1998 07:53:37 -0800
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Hi Frigid One;

> Here's one I don't think anyone has asked yet. Forgive me if it's
> a dumb question.....It gets mighty cold here in Minnesota. Should
> I take my boxes of tubes out of the garage?

Is your garage attached to the house? If so, your tubes are in a safe

haven. The garage will get enough heat from the house to be warmer than outside and will remain dry. Store the tubes against an inside wall for more warmth. If your garage is separate it could get pretty damp so a heat lamp or two could be of use there. Store the tubes in the interior of the garage, not against a wall, and at least three feet above the floor. Cover them with plastic but leave the bottom open to allow drying. Hope this relieves the anxiety. Happy Holidays & a BAfull New Year!

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

Message-Id: <3.0.32.19981220110102.00c08fe4@revealed.net>
Date: Sun, 20 Dec 1998 11:01:11 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: "James D. Mayfield" <kb9bnr@revealed.net>
Subject: Tube Question
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Are 5U4's and 5R4's interchangeable?

I just bought a DX-100 from a guy, and it was "in working condition" Guess so if you like fire coming out of the bottom.

This DX-100 had one 5r4 and one 5u4 in it. It calls for two 5r4's. The power cord was replaced, and NOT FUSED!!! who ever replaced it should not be playing with HV. He really screwed up they way it was installed, the tensions from the cord broke the terminal strip in half, and is now just floating around waiting to arc, and then he poorly wrapped black tape around it. (Like that was going to hold it) and as I said, to top it all off he did not install any fuses. I hope this is all that's wrong with this unit, it's fairly nice other than the fireworks.....

73 Dave KB9BNR

Dave Mayfield KB9BNR
Personal Web Page
<http://home.revealed.net/qste/bnr/kb9bnr.html>

Message-Id: <199812201711.MAA12395@raptor.vermontel.net>
From: "Pete Ferrand" <pete@vermontel.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Tube Question
Date: Sun, 20 Dec 1998 12:16:07 -0500

> I hope this is
> all that's wrong with this
> unit, it's fairly nice other than the fireworks.....

Moral of this story:

NEVER try to use *ANYTHING* secondhand without taking the covers off first and looking into (at least) the mains and power supply arrangements!

73,
-Pete
WB2QLL
Plainfield, NH
pete@vermontel.net

Date: Sun, 20 Dec 1998 12:18:02 -0500 (EST)
Message-Id: <199812201718.MAA22656@smtp11.bellglobal.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
To: Old Tube Radios <boatanchors@theporch.com>
From: Andre Guibert <aguibert@sympatico.ca>
Subject: Re: Storage Temperature for Tubes

Bonjour Arden and All
Had a VK5 shipboard radar stored in shed, Jerry Proc got hold of it by hook and crook for his "ship anchor"(Haida).
When his henchmam(Jim Bower) powered it, all the GE made tubes had a fracture between pin bases and the glass envelopes and got white(Serve them right)
The tubes looked normal before being fired up.
Lowest temperatures around here would be about - 30F
Andre
PS How do call a French Canadian at the North pole?
Un Christalise
An Englishman is: Un bloke de glace

Message-Id: <2.2.32.19981220180849.0140648c@rideau.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Sun, 20 Dec 1998 13:08:49 -0500
To: Old Tube Radios <boatanchors@theporch.com>

From: Larry Kayser <kayser@rideau.net>
Subject: Millen 90800, more info....

Don wrote:

>I expect Charles has heard this from others directly, but it can't hurt to
>post it here. The Millen transmitters, VFOs and amplifier all started life
>as construction projects in ARRL Handbooks or in QST. The 90800 in
>particular was in the handbook from about 1947 through 1951. Complete coil
>data is provided. The 500W HF amplifier was also in the handbook, though I
>forget what years and the VFO was from a QST article that was a cover
>story.

>So, long before there was Unix, James Millen was selling products with
>source code readily available.

Don, a wonderful way to put it! Yes a wonderful way, and the good news is the output from the Millen people was even earlier than you speak! The original article was in QST pre War (preWar as far as the USA was concerned in any case, but well after the shooting started for those of British decent). The 90800 also appeared throughout the WWII period in the Handbook, for instance in the 1944 ARRL Handbook it was on page 259.

After the War, the item appeared again in 1947 or 1948, with the design cleaned up a bit and somewhat cleaner layout. The 90800 Millen product was actively sold for \$42.50 in QST for a number of years.

In the 1950's, with the onslaught of Television and the interference problems that introduced a newer version was introduced in QST with a lower power oscillator and a 6146 in the final. This became the 90801.

Still later, a rigidly shielded variant was introduced in QST which was fully shielded, but configured for 6 and 10 meters, done by Ed, W1HDQ who was the VHF editor.

Amateurs who find one of these rigs should examine the unit very carefully. If you find NO parts with the name Millen Co., and you find that all the variable capacitors, coil mounting bars, coils, etc have had the Millen name missing, a very thorough removal of the names on all of the parts, you may have a very rare transmitter unit indeed. During WWII there was a major effort on the part of the Allies, specifically the USA to interdict raw quartz crystals commonly found in nature in South America from getting to the Axis. A task force operated in clandestinely throughout WWII to stop crystals from getting to another clandestine team from the Axis nations. The radios used to support this program were the AN/PRC-1 suitcase portables, many of which later found there way into amateur radio circles after the War.

Interestingly, a second level of intrigue in this work, was that certain quartz crystals, not very large ones, were intentionally allowed to get to the Axis, these crystals had a fault in the form of a distinctive "chirp" on the transmitted signal and could be characterised by the Allied intelligence services.

Regardless and back to the Millen 90800 family of transmitters, there were several dozen transmitting and receiving sets made up, the receiver used has not been cleanly identified, it is possibly a variant of the NC-44 or NC-46, and these radios were used to support the Allied quartz and rubber clandestine interdiction projects.

If you find a 90800 with no markings I am a rather keen customer for that transmitter unit.

73, es Merry Christmas or as appropriate a happy holiday to each of you and yours, best for 1999...

Larry
VA3LK / WA3ZIA

Message-ID: <012501be2c44\$5bda8b40\$a15c9ed1@billriches>
From: "Bill Riches" <briches@bellatlantic.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Tube Question
Date: Sun, 20 Dec 1998 13:12:49 -0500
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

-----Original Message-----
From: James D. Mayfield <kb9bnr@revealed.net>
To: Old Tube Radios <boatanchors@theporch.com>
Date: Sunday, December 20, 1998 12:05 PM
Subject: Tube Question

>Are 5U4's and 5R4's interchangeable?
>
No

Tube	Fil	Plate Vmax	Plate Imax	Max PIV
5R4	5V@2A	950	175	2800
5U4	5V@3A	450	275	1550

5R4 is used for HV section - 2 in parallel
5U4 is used for LV section -

5U4 in 5R4 hole will produce fireworks!!

73, Bill WA2DVU
Cape May, NJ

Message-ID: <367D4857.2C52@ix.netcom.com>
Date: Sun, 20 Dec 1998 12:56:23 -0600
From: David Stinson <arc5@ix.netcom.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: ATTN: I-177 Tube Tester Owners
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Have this uncommon item for *trade only*.
Please note that offers to purchase for cash
will be deleted without response.

MX-949/U external tube adaptor kit built
to go with the I-177 tube tester.
It's in good, complete shape.
These are hard to find.

My "wanted" list includes:

For the ATD transmitter--
CRR-47027 200-540KC Tuning Unit
Dynamotor and power plugs

For BC-611-type radios -- accessories

UN-DRILLED
SCR-274N "ARC-5-type" radios, racks etc.
that are marked BOTH
SIGNAL CORPS US ARMY
 and
AIRCRAFT RADIO CORPORATION

Anything *uncommon* from SCR-274N, ARC-5.

Anything from RAT or RAV.

Willing to consider other aircraft/portable
items from WW-II or uncommon Signal Corps
manuals from WW-I.

Thanks and happy holidays,
--
73 DE David Stinson AB5S
arc5@ix.netcom.com

Occupied Texas, CSA

Message-ID: <009901be2c67\$04a490a0\$c31bbfd1@n4fs>
From: "Mike B. Feher" <n4fs@monmouth.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: ATTN: I-177 Tube Tester Owners
Date: Sun, 20 Dec 1998 14:20:53 -0800
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I have about 3 or 4 of these MX-949/U adapters for \$50 each plus shipping.
73 & Seasons Greetings - Mike

Mike B. Feher, N4FS
89 Arnold Blvd.
Howell, NJ, 07731
732-901-9193

Message-Id: <3.0.32.19981220143846.00c0d19c@revealed.net>
Date: Sun, 20 Dec 1998 14:38:49 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: "James D. Mayfield" <kb9bnr@revealed.net>
Subject: Need Transformer
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Does anyone have an original HV transformer for a Heathkit DX-100, mine is
shot. If you have this and would like to sell it, please drop me a note...

73 Dave

Dave Mayfield KB9BNR

Personal Web Page

<http://home.revealed.net/qste/bnr/kb9bnr.html>

Message-Id: <3.0.32.19981220125253.006d52bc@pop.mindspring.com>

Date: Sun, 20 Dec 1998 12:53:32 -0800

To: Old Tube Radios <boatanchors@theporch.com>

From: jim lockwood <jmlckwd@mindspring.com>

Subject: DX-100 audio distortion

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

Warm greetings, Gang, from the snowy Sierra Nevada,

I don't understand what I'm seeing when I look at the modulated RF signal from my DX-100B. Above about 50% modulation, the envelope takes on some distortion that is easily visible on my scope. Below about 50%, the distortion (which I'm sure is present to some degree) is not detectable by viewing the RF envelope. I want to know what's going on here and what can be done about it, if anything.

The distortion, just so you can visualize it, is such that the sinusoidal input morphs into a waveform with a noticeable "knee" (transitioning to a relatively less steep slope) just prior to waveform maxima and minima at low frequencies. At higher frequencies (3500 cps or so), the distortion is such that the waveform morphs into a triangluar wave with rounded maxima and minima.

Now, before everyone tells me that stock DX-100s sound like telephones (and very old telephones at that) and that I need to change this or modify that, let me describe the condition of the audio circuitry and it's behavior in this DX-100B. It's really not as bad as folklore and conventional wisdom would lead you to think.

First, in this DX-100B, all of the passive components in the low level audio stages (except the tube sockets) are new. All carbon comps have been changed to metal film. The paper caps have been replaced with mylar caps. The 2uF electrolytics have been replaced with 4.7uF electrolytics. The 510pF coupling caps have been replaced with 2200pF caps. The 470K input grid resistor has been changed to a 1M resistor.

The performance of this front end circuitry is fine: I can sweep the audio chain with my signal generator and monitor the waveform at the 1625 grids. I see flat response with no distortion from about 200 cps to well above 5 Kc.

It appears to me that all of the distortion I see on the RF envelope

originates in the 1625/modulation transformer area.

For those who know the DX-100 circuitry by heart, I can already hear you saying, regulate those screens and short out those 1K grid resistors. I hear you, but.....

When I adjust the audio level from 0% modulation to near 100% modulation, the 1625 screen voltage drops by only about 10 Volts and there is no audio waveform imposed on it. How much better regulation does it really need?

When I short out the 1K grid resistors, I see no change at all in the RF envelope. And I shouldn't since the transmitter can reach 100% modulation long before the 1625s start drawing grid current.

So, what's going on here? Is this distortion just an artifact of passing an audio waveform through the iron of the modulation transformer? Is it normal? Is there a cure? Is it worth curing?

Thanks in advance for any guidance, suggestions, wisdom, or all three.

73,

Jim - K4CCF

(formerly KM6NK, WA4K00, WN4K00)

Looking for original QSL cards from K4CCF

<http://www.mindspring.com/~johnmb/radiorm1.htm>

From: Kargokult@aol.com
Message-ID: <de304809.367d693c@aol.com>
Date: Sun, 20 Dec 1998 16:16:44 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Re: Storage Temperature for Tubes
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

concern over storage temperature of tubes, forgets the fact that much equipment using tubes, namely any mobile or portable equipment, regularly and for extended periods had to wait for next use, in environment not insulated from the ambient temperatures. any temperature encountered on the face of this planet isn't going to harm vacuum tubes. conditions of high moisture, or condensation on the tubes from moisture falling out due to rapid change of

temperature, may cause the tube number markings to fade.
hue

From: Kargokult@aol.com
Message-ID: <471dcb8c.367d6c0a@aol.com>
Date: Sun, 20 Dec 1998 16:28:42 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Re: Outcome of 'Micamold' surgery
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

H. Miller wants to thank those who gave the advice, even basic as it was, to simply break open one of these 'postage stamp' caps and examine the innards. i did this using 2 large slipjaw pliers, just snapped the little cracker in half, and lo & behold, sure looks like mica sheets in there. so, i'm set for this one value 0.006 MF, for a lifetime supply, and i learned a real basic technique to evaluate future samples.
hue

Date: Sun, 20 Dec 1998 15:40:36 -0600 (CST)
From: Bill Hawkins <bill@iaxs.net>
Message-Id: <199812202140.PAA04865@citrus.iaxs.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: DX-100 audio distortion

When it distorts on both max and min, the source is on the push-pull side. When it looks OK up/down to a certain point, that suggests overload. If there's no audio to speak of on the B+ or screens, how about saturation of the transformer. See if you can decrease the DC milliamps drawn by the modulator tubes, and does that raise the point at which distortion becomes visible. I mean the zero input bias current, of course.

Regards,
Bill Hawkins

Date: Sun, 20 Dec 1998 17:15:30 -0500 (EST)
From: Sandra L Knepper <slkst29+@pitt.edu>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>, owner-boatanchors@theporch.com
Subject: Re: Storage Temperature for Tubes
Message-ID: <Pine.GS0.3.96L.981220171459.5813E-1000000@unixs2.cis.pitt.edu>
MIME-Version: 1.0

Content-Type: TEXT/PLAIN; charset=US-ASCII

And, don't forget to stand them upright so the filaments do not sag, shorting to the other elements.

Happy Holidays

Dave, W3ST
Publisher of the Collins Journal
Homepage: <http://www.pixi.com/~jenkins/collins>

On Sun, 20 Dec 1998, Arden Allen wrote:

```
> Hi Frigid One;
>
> > Here's one I don't think anyone has asked yet.  Forgive me if it's
> > a dumb question.....It gets mighty cold here in Minnesota.  Should
> > I take my boxes of tubes out of the garage?
>
> Is your garage attached to the house?  If so, your tubes are in a safe
> haven.  The garage will get enough heat from the house to be warmer than
> outside and will remain dry.  Store the tubes against an inside wall for
> more warmth.  If your garage is separate it could get pretty damp so a heat
> lamp or two could be of use there.  Store the tubes in the interior of the
> garage, not against a wall, and at least three feet above the floor.  Cover
> them with plastic but leave the bottom open to allow drying.  Hope this
> relieves the anxiety.  Happy Holidays & a BAfull New Year!
>
> Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net
>
```

From: Kargokult@aol.com
Message-ID: <942f8718.367d8012@aol.com>
Date: Sun, 20 Dec 1998 17:54:10 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Re: Millen 90800, more info....
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

In a message dated 98-12-20 13:09:39 EST, kayser@rideau.net writes:

```
> Interestingly, a second level of intrigue in this work, was that certain
> quartz crystals, not very large ones, were intentionally allowed to get to
> the Axis, these crystals had a fault in the form of a distinctive "chirp"
on
> the transmitted signal and could be characterised by the Allied
```


intelligence
> services.

????

German equipment used crystal control to a much lessor extent than the allies, partly because of difficulty of supply, mostly just different design philosophy. more common was the use of quartz crystal for calibration purposes, or receiver IF selectivity. Japan had their own plentiful supply, eventually probably limited by Japan's economic isolation.

?? faults in raw quartz blanks that caused chirp in the finished product?? ??that the manufacturer, inspectors, and end users overlooked??
--hue miller

From: "Jim Berry" <basalop@gte.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Dyanamonsters and stuff for fun
Date: Sun, 20 Dec 1998 14:59:06 -0800
Message-ID: <003901be2c6c\$58ad6000\$7345fdd0@default>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hello Group,

With the recent interest in Dynamotors, I thought I would attempt to create something worth reading. I am lucky enough to have a shack separate of the house located out in the backyard. My wife decided we were going to have a stress free Christmas, so she had a niece, nephew and grand daughter come stay with us. Didn't sound very stress free to me. At least I can excape to my shack.

Though I have many unfinished projects, one that I have been setting aside has been putting an old TCS back on line. Would you believe this old TCS was my first novice rig back in 1962. I gave it away in the mid 70's. Found it again last summer. Guy I gave it to was more then happy to give it back. It had been setting in a storage shed for all this time. Turned on my RAO receiver, tuned to a CW QSO on 40 meters, cup of coffee in hand, I set back and enjoyed.

I originally built an AC supply for it. Never did make use of

the dynamotor supply. So for fun, while hiding from snoot noses, I decided to overhaul the dynamotor supply. The first thing I discovered was the original bearing grease (Navy used a grease called Andock C) had turned to rather crunchy chunks.

I first flicked out all the hardened grease and washed the bearings out using regular kerosene (actually a colored lamp oil I had handy). Have some of those little brushes with the tubular metal handles. They came in handy for slopping in the kerosene and softening up what was left of the original grease. I also have one of those little air compressors that I picked up at a garage sale. Perfect for blowing out the bearings. I smeared in some new high temp wheel bearing grease.

The first thing I had done was remove the brushes. The dynamotor set has had some hours on it. I have no idea how many though. The commutators were not wore down, but you could tell they had time on them. Using a piece of 400 grit sandpaper, my finger, and a little pressure, the commutators are pretty nice and shiny. There are still a few scratch marks from the brushes showing, but I did not want to get too aggressive with just the 400 and my finger. This evening I will have to go out and hook up the TCS and original dynamotor supply. Going to be fun. Which also reminds me that RAO quit working last night. OH BOY! More reasons to head out to my shack.

Want to wish you all a Merry Christmas and lots of old radios to work on.

73 Jim K7SLI

End of BOATANCHORS Digest 2344
